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Senior Health and Wellness Newsletter

Kentucky Department for Aging and Independent Living

Preventive Oral Health Series: Part III: Fluorides and Mouth Rinses

This is the third of our three-part Series on Preventive Oral Health. The first article of our Series (June 2013) reviewed how to brush your teeth effectively and select the correct type of toothbrush as two keys to good oral care. In the second article (July 2013), we examined the types of toothpastes available on the market and how to effectively choose the right toothpaste as a part of a good oral hygiene program.

Brushing your teeth at least two times a day (morning and night) along with flossing at least once a day to clean between the teeth, are cornerstones of good oral healthcare and keys in the prevention of periodontal (gum) disease and tooth decay. Periodontal disease is very common in adults and is a contributing factor leading to an increased risk and development of poor diabetes control, aspiration pneumonia, stroke and other conditions.

In this article, we will discuss the use of fluorides, mouth rinses, and various other preventive dental products as part of an effective preventive oral health program. Fluoride works by mechanisms which affect tooth surfaces and plaque. It works primarily and most effectively to inhibit tooth demineralization, enhance tooth remineralization and inhibit plaque bacteria. The Fluoride can be delivered by drinking water, food, beverages or dental products such as fluoride rinses, gels, varnish and toothpaste.

Community Fluoridated Water (CFW)

CFW has been in use for 68 years and has been shown to reduce tooth decay by approximately 50%. The Centers for Disease Control and Prevention has mentioned community water fluoridation as one of 10 Great Public Health Achievements of the 20th century. It is important to remember that switching to non-fluoridated bottled water instead of drinking fluoridated drinking water may result in an increased risk of getting tooth decay (cavities), if the fluoride is not supplemented in other ways.

Topical Fluorides

There are several products which can effectively deliver fluoride topically (to tooth surfaces and plaque).

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Fluoride Containing Toothpastes

As we stated in the July Newsletter, all toothpastes which have earned the ADA Seal of Acceptance contain fluoride. Research suggests brushing with a fluoridated toothpaste results in a significant (21%-45%) reduction in cavities depending on brushing frequency (1-3 times per day). This reduction in cavities is in addition to the reduction already achieved by drinking fluoridated water. Over-the-counter (OTC) toothpastes typically have a lower fluoride concentration than toothpastes which are available from a dentist by prescription. These prescription toothpastes, which contain a higher concentration of fluoride, are especially beneficial for people with conditions such as exposed root surfaces and a high susceptibility to cavities.

Low Fluoride Concentration Rinses and Gels

These products may be applied at home by the individual and may be used in addition to OTC fluoride toothpastes. Those products such as gels which do not have their own applicator system, are usually applied via toothbrush. OTC fluoride rinses are not recommended for children under the age of 6 or people who may have difficulty not swallowing the product. Manufacturer's or dentist's recommendations should be followed when using these products which typically call for use once daily and after brushing. These products are particularly helpful for patients with an increased susceptibility to cavities, exposed root surfaces or hypersensitivity.

(Continued on back)

High Fluoride Concentration Gels, Rinses, Foams and Varnish

These products are typically applied by a dental professional after a dental cleaning and contain a higher concentration of fluoride. Gels and foams typically involve the use of a tray or carrier system and are held in the mouth for several minutes under the supervision of a dental professional. Fluoride varnish is a concentrated version of topical fluoride that is painted on teeth to give a long Fluoride exposure. Fluoride varnish typically takes less time to apply and creates less patient discomfort than comparable high fluoride gels. These products may be particularly beneficial for people with moderate to extreme risk of getting cavities, exposed root surfaces or root caries and/or tooth sensitivity. The frequency of application depends on a person's individual oral health risk factors and status.

Mouth Rinse Overview

A variety of mouth rinses are available on the market today and are used for a variety of reasons such as to:

- freshen breath;
- prevent or control cavities (tooth decay);
- decrease plaque formation;
- prevent or reduce gingivitis (a reversible and early form of gum disease);
- decrease the speed that tartar or calculus (mineralized or hardened plaque) forms on teeth; or
- produce a combination of the effects mentioned above.

Mouth rinses may be categorized as either Cosmetic or Therapeutic. According to the ADA, cosmetic mouth rinses act temporarily to control or reduce bad breath and leave the mouth with a pleasant taste. They don't kill the bacteria that cause bad breath or chemically inactivate odor causing compounds. Also, none of the cosmetic mouth rinses helps reduce plaque, gingivitis, or cavities. Therapeutic mouth rinses, on the other hand, can help reduce plaque, gingivitis, cavities and bad breath. Some therapeutic mouth rinses contain agents that either fight bad breath bacteria or that chemically inactivate odor causing compounds. Therapeutic mouth rinses that contain fluoride also help reduce or prevent tooth decay.

Chlorhexadine Gluconate is an antibacterial rinse that is only available by prescription. It has been used for the management of cavities and periodontal disease because it is effective against bacteria associated with both conditions. This product is particularly effective for people with a high to extreme risk of getting tooth decay.

Xylitol is a sweetener which inhibits some bacteria associated with tooth decay. It also reduces plaque formation and stimulates saliva flow. Xylitol can be found in specially-formulated products such as some gum, mints, sprays, and toothpaste. People generally like the taste of Xylitol containing products. It is especially beneficial for people with a moderate to extreme risk of getting cavities and to treat some causes of dry mouth.

To summarize, a variety of mouth rinses, fluorides and other preventive dental products are available which have the potential to be beneficial. People should visit a Dentist regularly for an oral examination (check-up) and cleaning. Every six months is a common schedule; however, depending on a person's particular oral health status and needs, it may be more or less than every six months. The check-up is an excellent time to review your preventive oral health program with your Dentist or Dental Hygienist and determine which fluorides, mouth rinses and/or other preventive dental products may benefit you.

For more information on fluorides, mouth rinses and other oral health topics visit:

- American Dental Association website: www.ada.org or www.mouthhealthy.org
- American Academy of Periodontology website: www.perio.org

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